



mos-filter

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Abstract

`mos-filter` is the initial task to be run on the data within the `esas` package for MOS. It calls `espfilt` to identify good time intervals. Filtering is also done using the standard parameters for `PATTERN`, etc. `mos-filter` will process all of the MOS imaging exposures for both detectors for the observation pointed to by `$SAS_DIR`.

1 Instruments/Modes

Instrument	Mode
EPIC	Imaging

2 Use

pipeline processing	no
interactive analysis	yes

3 Description

`mos-filter` is the initial task to be run on the data within the `esas` package for MOS. It calls `espfilt` to identify good time intervals. Filtering is also done using the standard parameters for `PATTERN`, etc. `mos-filter` will process all of the MOS imaging exposures for both detectors for the observation pointed to by `$SAS_DIR`.

Warning and requirements: `mos-filter` is part of the `esas` package integrated into SAS, but it is limited to work within the `esas` data reduction scheme.

4 Parameters

This section documents the parameters recognized by this task (if any).

Parameter	Mand	Type	Default	Constraints
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None.



5 Input Files

The task will filter data reduced either with `emproc` or `emchain`, present in the working directory.

6 Output Files

- `mosprefix-cc-ori.fits` – The cal-closed photon event files produced by *emchain*
- `mosprefix-clean.fits` – The filtered photon event files
- `mosprefix-corn.fits` – Event list of data from the corners of the detectors
- `mosprefix-corn-image.fits` – Image of the filtered data from the unexposed corners in detector coordinates
- `mosprefix-gti.fits` – Fits file list of good time intervals identified by the task *espfilt*
- `mosprefix-gti.txt` – Ascii list of good time intervals identified by the task *espfilt*
- `mosprefix-hist.qdp` – QDP plot file of the light curves showing the filtered intervals and a histogram of the `mosprefix-rate.fits` showing the filtering selection.
- `mosprefix-obj-image-det.fits` – Image of the filtered data in detector coordinates
- `mosprefix-obj-image-det-soft.fits` – Image of the filtered data in detector coordinates in the 0.2 – 0.9 keV band
- `mosprefix-obj-image-det-unfilt.fits` – Image of the unfiltered data in detector coordinates
- `mosprefix-obj-image-sky.fits` – Image of the filtered data in sky coordinates
- `mosprefix-ori.fits` – The photon event files produced by `emproc` / `emchain`
- `mosprefix-ratec.fits` – Light curve of the data from the corners of the detectors in the 2.5 – 12.0 keV band
- `mosprefix-rate.fits` – Light curve of the data within the open area of the detectors in the 2.5 – 12.0 keV band

7 Algorithm

8 Comments

References